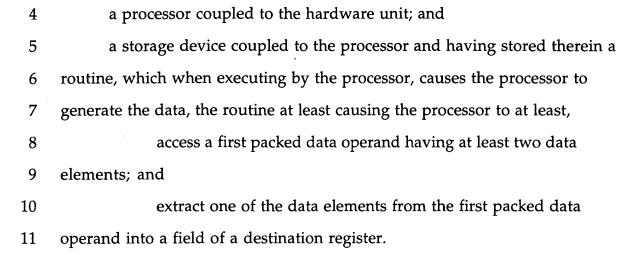
CLAIMS

What is claimed is:

| 1 | 1. A computer system comprising: | | |
|----|--|--|--|
| 2 | a hardware unit to transmit data representing graphics to another | | |
| 3 | computer or a display; | | |
| 4 | a processor coupled to the hardware unit; and | | |
| 5 | a storage device coupled to the processor and having stored therein a | | |
| 6 | routine, which when executing by the processor, causes the processor to | | |
| 7 | generate the data, the routine at least causing the processor to at least, | | |
| 8 | access a first data operand having a data element; | | |
| 9 | access a second packed data operand having at least two data | | |
| 10 | elements; | | |
| 11 | insert the data element in the first data operand into a | | |
| 12 | destination field of a destination register. | | |

- 1 2. The computer system of claim 1 wherein the storage device further
- 2 comprises a packing device for packing floating point data into the data
- 3 elements.
- 1 3. The computer system of claim 1 wherein the storage device further
- 2 comprises a packing device for packing integer data into the data elements.
- 1 4. A computer system comprising:
- a hardware unit to transmit data representing graphics to another
- 3 computer or a display;

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- The computer system of claim 4 wherein the storage device further
 causes the processor to extract one of the data elements from the first packed
 data operand into a field of a packed destination register.
- 1 6. The computer system of claim 4 wherein the storage device further comprises a packing device for packing floating point data into the data elements.
- The computer system of claim 4 wherein the storage device further
 comprises a packing device for packing integer data into the data elements.

| 1 | 8. | A method comprising the computer-implemented steps of: |
|---|------|---|
| 2 | | decoding a single instruction; |
| 3 | | in response to the step of decoding the single instruction, |
| 4 | | accessing a first data operand having a data element; |
| 5 | | accessing a second packed data operand having at least two data |
| 6 | elen | nents; |
| 7 | | inserting the data element in the first data operand into a |
| 8 | dest | ination field of a destination register. |

- 1 9. The method of claim 8 further comprising the step of packing floating
- 2 point data into the data elements.
- 1 10. The method of claim 8 further comprising the step of packing integer
- 2 data into the data elements.
- 1 11. A method comprising the computer-implemented steps of:
- 2 decoding a single instruction;
- 3 in response to the step of decoding the single instruction,
- 4 accessing a first packed data operand having at least two data
- 5 elements; and
- 6 extracting one of the data elements from the first packed data
- 7 operand into a field of a destination register.
- 1 12. The method of claim 11 wherein the step of extracting one of the data
- 2 elements from the first packed operand comprises extracting one of the data
- 3 elements from the first packed data operand into a field of a packed
- 4 destination register.

- 1 13. The method of claim 11 further comprising the step of packing floating
- 2 point data into the data elements.
- 1 14. The method of claim 11 further comprising the step of packing integer
- 2 data into the data elements.
- 1 15. A method comprising the computer implemented steps of:
- 2 accessing data representative of a first three-dimensional image;
- 3 altering the data using three-dimensional geometry to generate a
- 4 second three-dimensional image, the step of altering at least including,
- 5 accessing a first data operand having a data element;
- 6 accessing a second packed data operand having at least two data
- 7 elements;
- 8 inserting the data element in the first data operand into a destination
- 9 field of a destination register; and
- displaying the second three-dimensional image.
- 1 16. The method of claim 15 wherein the step of altering includes the
- 2 performance of a three-dimensional transformation.
- 1 17. The method of claim 15 wherein the step of altering includes the step
- 2 of packing floating point data into the data elements.
- 1 18. The method of claim 15 wherein the step of altering includes the step
- 2 of packing integer data into the data elements.
- 1 19. A method comprising the computer implemented steps of:

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- 2 accessing data representative of a first three-dimensional image; 3 altering the data using three-dimensional geometry to generate a 4 second three-dimensional image, the step of altering at least including, 5 accessing a first packed data operand having at least two data elements; 6 and 7 extracting one of the data elements from the first packed data operand 8 into a field of a destination register; and 9 displaying the second three-dimensional image.
- 1 **20**. The method of claim **19** wherein the step of altering further includes
- 2 the step of extracting one of the data elements from the first packed data
- 3 operand into a field of a packed destination register.
- 1 21. The method of claim 19 wherein the step of altering includes the
- 2 performance of a three-dimensional transformation.
- 1 22. The method of claim 19 wherein the step of altering includes the step
- 2 of packing floating point data into the data elements.
- 1 23. The method of claim 19 wherein the step of altering includes the step
- 2 of packing integer data into the data elements.